

WHAT IS CLAIMED IS:

1. A flowering time controlling protein, COG2, having the amino acid sequence of SEQ ID NO: 2.

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2. A DNA encoding the COG2 protein of claim 1.

3. The DNA of claim 2, which has the nucleotide sequence of SEQ ID NO: 1.

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4. An expression vector comprising the DNA of claim 2.

5. A microorganism transformed by the expression vector of claim 4.

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6. A plant transformed by the expression vector of claim 4.

7. A method for controlling the flowering time of a plant, which comprises transforming the plant with the DNA of claim 2.

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8. The method of claim 7, wherein the flowering time of a plant is controlled by transforming the plant with an expression vector comprising the DNA of claim 2 and overexpressing COG2 gene in the transformed plant.

9. The method of claim 8, wherein the plant is selected from the group consisting of: food crops including rice, wheat, barley, corn, bean, potato, red bean, oat and millet; vegetable crops including *Arabidopsis*, Chinese cabbage, radish, red pepper, strawberry, tomato, watermelon, cucumber, cabbage, melon, squash, stone-leek, onion, and carrot; special crops including ginseng, tobacco, cotton, sesame, sugar cane, sugar beet, wild sesame, peanut, and rape; fruits including apple, pear, date, peach, western Actinidia, grape, orange, persimmon, plum, apricot and banana; flowers including rose, gladiolus, gerbera, carnation,

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mum, lily and tulip; fodder crops including ryegrass, red clover, orchard grass, alfalfa, tall fescue and perennial ryegrass.